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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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AKIHIRO SUZUKI

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EXAMINER

QIN, YIXING

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/364,070	Applicant(s) SUZUKI ET AL.	
	Examiner Yixing Qin	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 15-18, 20 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 16-18, 20 and 26-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 16-20 and 26-31 in the reply filed on 10/31/07 is acknowledged. The Examiner points out that claim 19 is currently canceled so, claims 16-18, 20, and 26-31 are being examined.

Response to Amendment

In response to applicant's amendment received 4/13/07, all requested changes have been entered.

Response to Arguments

Applicant's arguments filed 4/13/07 have been fully considered. The claims have been amended to more clearly define the invention. However, the previously cited reference, Bain still discloses/suggest the features of the newly amended invention.

The argument is that the new amendments of determination of whether to modify an attribute information of a print job is based upon the queue that stores the job information, the current state of the job, and the previous state of the job.

Bain suggests these features in several places. Column 8, lines 1-8 discloses that jobs that are being distributed cannot have their priority changed. This indicates that current state of the job affects the ability to modify a job (i.e. whether it is being distributed or not).

Additionally, column 7, lines 18-51 discloses the suspension of queues. Lines, 29-36 discloses that if a queue is suspended, then a distributed job is finished and the

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queue is suspended. Thus, those jobs that are modifiable are to be in any of the number of generic queues (Q1 to Qn as show in the spooler 28 of Fig. 1). As discussed above, jobs being distributed are not to have priority changed, and from column 7, lines 18-51 are not part of any particular queue. Also completed jobs are to be sent to a history queue as discussed below. This shows that there is dependence on the queue in which the job is in on whether modification are to be made to the job.

In column 12, lines 48-58, Bain discloses that a completed job will be moved to a history queue with a completion status. This indicates that the job has previously been processed. Thus, one of ordinary skill would realize that a job with a previous state of processing would not be able to be modified either since a previously processed job would be completed and sent to a history queue. One would recognize that it would not be beneficial to modify an already completed job.

Please see the rejection below for more detail.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-18, 20, 26-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Bain (U.S. Patent No. 5,287,434)

Regarding claim 16, Bain discloses a job scheduling device comprising:

a job scheduling section (pc 14, column 3, lines 50-55) that prepares job information of each print job, wherein each print job includes print data and attribute data, (Fig 2, items J1, J2 and column 6, lines 55-69, column 8, lines 35-40) each job information includes a current state of the print job and a previous state of the print job, (column 7, line 10-20 – processed job's current state is saved. The job's previous state would be queued or undistributed to a printer as defined by the queue destination in the job information) and the print jobs are received from terminals connected to the job scheduling device; (Fig. 1, devices 10-12 are terminals sending information to the job queue.)

a queue management section that stores, in one of a plurality of queues, the job information of each print job in accordance with the current state of the print job; (column 6, line 55-59 and column 7, lines 22-51 shows that the jobs in queues and the queues can be put in various states depending on the microprocessor block 78) and

a job execution control section that sequentially outputs the print jobs held in the queues based on the attribute information of the print jobs, (column 2, lines 30-56 – the jobs are printed according to job priority and printing capabilities of printers) wherein:

the job scheduling section schedules the print jobs using the plurality of queues, (column 2, lines 30-56 – jobs are assigned to queues based upon priority.)

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and

It does not explicitly disclose “upon receipt of an instruction for modifying attribute information of one of the print jobs, the job scheduling section determines whether or not it is allowed to modify the attribute information of the one of the print jobs, based on (i) the queue that stores the job information of the one of the print jobs, (ii) the current state of the one of the print jobs, and (iii) the previous state of the one of the print jobs...”

The applicant's specification discloses on page 160, lines 2-22 that a job is checked whether it has previously been in a processing state. If the job was processed then it would be in the terminate queue q7 or q8 and that changes would not be allowed.

Column 8, lines 1-8 discloses that jobs that are being distributed cannot have their priority changed – this shows the determining of whether to be able modify based upon the current state of the job (i.e. whether it is being distributed or not).

Column 7, lines 18-51 discloses the suspension of queues. Lines, 29-36 discloses that if a queue is suspended, then a distributed job is finished and the queue is suspended. Thus, one of ordinary skill would realize those jobs that are modifiable are to be in any of the number of generic queues (Q1 to Qn as show in the spooler 28 of Fig. 1). This suggests dependence on the queue that stores the job to be modified.

Also, Bain discloses in column 12, lines 48-58 that a completed job will be moved to a history queue with a completion status. This indicates that the job has previously been processed. Thus, one of ordinary skill would realize that a job with a previous

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state of processing would not be able to be modified either since a previously processed job would be completed and sent to a history queue. One would recognize that it would not be beneficial to modify an already completed job.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used the previous state of the job in determining whether a job's attributes can be modified.

The motivation would have been to see if a job has already been completed and thus modifying it wouldn't make sense or even possible if the job's data is deleted.

Therefore, it would have been obvious to alter the Bain invention to obtain the invention as specified.

Regarding claim 17 , Bain discloses the job scheduling device of claim 16, wherein the job scheduling section modifies the attribute information of the print job when the attribute information of the print job can be modified. (column 8, lines 1-8 the priority is reassigned when it meets the criteria disclosed.)

Regarding claim 18 , Bain discloses the job scheduling device of claim 16, wherein the job scheduling section modifies the attribute information of the print job when the instruction is free from errors (attribute information/instruction is I's and O's to the microprocessor; attribute information/instruction is free from error is being interpreted as the microprocessor would recognize/determined from the attribute information (I's and O's) as a attribute information/instruction. Errors in the attribute

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information/instruction means the microprocessor would not recognize the I's and O's in the attribute information/instruction. The microprocessor changes the attribute in response to a change attribute, column 8, lines 1-10. Therefore, the microprocessor would change attribute only when the attribute information/instruction is free from error; i.e. The microprocessor would recognized the attribute information/instruction)

Regarding claim 20 , Bain discloses the job scheduling device of claim 18, wherein the job scheduling section determines that the instruction has an error when the instruction includes an attribute that is not supported by the job scheduling device. (, fig. 2, column 8, lines 1-10, the attribute modifying means must determines if the instruction can be processed; the examiner interprets that the event that the instruction can not be processed, e.g., the job cannot be processed by a printer, is an error) when the instruction includes an attribute that is not supported by the job scheduling device (the change of priority of a print job is not being supported during the time the print job is being distributed to a printer, column 8, lines 1-10; also see claim 16)

Regarding claim 26 , Bain discloses the job scheduling device of claim 16, wherein upon receipt of the instruction for modifying the attribute information of the one of the print jobs, the job scheduling section modifies the attribute information of the one of the print jobs only when the one of the print jobs can be changed at the time when the instruction is received, and when the job scheduling section determines that the attribute information of the one of the print jobs is acceptable to the job scheduling

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device. (column 8, lines 1-8. It is determined by the microprocessor that the job is not in a distribution state, so that the priority of the job can be reassigned.)

Regarding claim 27 , Bain discloses the job scheduling device of claim 16, wherein the attribute information of each print job includes at least one of paper size, tray number and the availability of double-sided printing. (column 6, lines 53-69)

Regarding claim 28 , Bain discloses the job scheduling device of claim 16, wherein when the previous state of the one of the print jobs indicates that the one of the print jobs was processed, the job scheduling section does not permit to modify the attribute information of the one of the print jobs. (again, from claim 16 above, if the job has been previously distributed and deleted, then the job cannot be modified.)

Regarding claim 29 , Bain discloses the job scheduling device of claim 16, wherein:

the plurality of queues include a hold queue, (Fig. 1, any of the queues Q1 to Qn can be considered a hold queue since their function is to hold a job) and

when the job information of the one of the print jobs is stored in the hold queue, the job scheduling section modifies the attribute information of the one of the print jobs. (column 8, lines 1-8 – since the job being in a regular queued state meets the criteria for changing priority, this type of job can be modified.)

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Regarding claim 30 , Bain discloses the job scheduling device of claim 29, wherein:

the plurality of queues further include a pause queue and a printer queue, and when the job information of the one of the print jobs is stored in any of the pause queue and the printer queue and when the previous state of the one of the print jobs indicates a state other than the one of the print jobs was processed, the job scheduling section modifies the attribute information of the one of the print jobs. (column 5, line 35-50 – jobs can be suspended in the queue – i.e. a suspend queue. Also the queue may be changed to print. Again, according to column 8, lines 1-8 – since the job being in a regular queued state meets the criteria for changing priority, this type of job can be modified)

Regarding claim 31 , Bain discloses the job scheduling device of claim 16, wherein:

the plurality of queues include a hold queue, a pause queue and a printer queue, and when the job information of the one of the print jobs is stored in a queue other than the hold .queue, the pause queue and the printer queue, the job scheduling section does not permit to modify the attribute information of the one of the job information. (again, see claims 29-30 above)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625